

Review of wildlife tourism's contribution to wildlife conservation in Sri Lanka and challenges caused by COVID-19 pandemic

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Abstract

Wildlife tourism is expected to promote and contribute to wildlife conservation and wellbeing of local communities who live in wildlife areas. This paper reviews the impact of wildlife tourism on wildlife conservation in Sri Lanka and reveals that the contribution of wildlife tourism to wildlife conservation and livelihood of local communities in the country is still inadequate. On the other hand, absence of wildlife tourism activities due to the outbreak of COVID-19 has created new challenges for wildlife conservation including increased poaching of wildlife. Sri Lanka should reevaluate the management of wildlife tourism and wildlife parks considering the new lifestyle and changes in travel behavior of people after the Pandemic.

I. Introduction

Wildlife watching in wildlife parks in Sri Lanka has become a very popular nature-based tourism activity with an increased number of local and foreign visitors. Local visitors increased from 487,265 in 2010 to 1,217,877 visitors in 2019 and foreign visitors from 143,198 in 2010 to 856,804 visitors in 2019 (Fig. 1). Elephants are the flagship species of tourism in the country and tourists visit wildlife parks mainly to see free ranging elephants (World Bank 2010).

According to the Sri Lanka Tourism Strategic Plan 2017-2020, tourism development should be focused on supporting conservation of biodiversity.

However, it has been an extremely difficult task to develop wildlife tourism while achieving wildlife conservation goals, especially in the context of elephant watching tourism and elephant conservation. Elephants are a great attraction to tourists, yet, at the same time, they are dangerous agricultural pests to local people (Bandara & Tsdel 2002).

This paper reviews the contribution of wildlife tourism in sustaining wildlife conservation and the current challenges of COVID-19 pandemic based on available tourism statistics, recently published studies, reports and

news on wildlife conservation issues in the country.

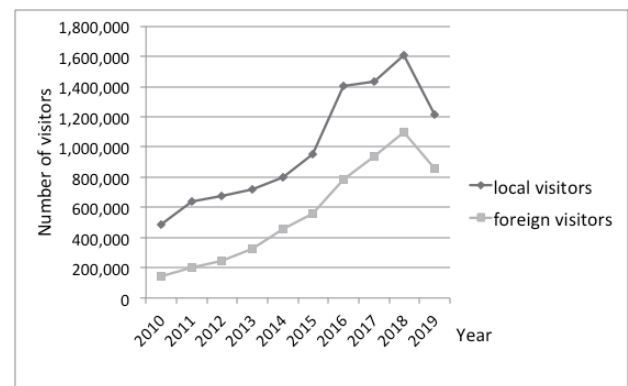


Fig. 1 Number of local and foreign visitors to wildlife parks in Sri Lanka in recent years

(Data source: SLTDA annual statistical report 2010 to 2019)

II. Conservation issues associated with wildlife tourism in Sri Lanka

Wildlife tourism activities in the country are causing several threats to wildlife conservation. Wildlife parks are faced with overcrowding and over use due to the increased number of visitors (Buultjens et al. 2005). Elephant movements in the parks are disturbed due to the uncontrolled tourism activities such as high vehicle traffic and watching elephants at close distances (photo 1 & 2). As a result, behavioral changes of elephants such as reduced feeding time and increased alert, stress behaviors are occurred (Ranaweera et al. 2015). Pollution due to human waste and unregulated feeding has also become a

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concern as animals get habituated to artificial diet that can cause adverse effects on animal health (Buultjens et al. 2005). There is a rapid expansion of agricultural and farming activities in the surroundings of wildlife parks in the country (Campos et al. 2009). Elephants enter into agricultural areas seeking for easy food and human-elephant conflict has become a major conservation concern in the country.



Photo 1: safari jeeps blocking elephants' way in Udawalawe National Park
Captured by N. Wijesena in January 2020



Photo 2. Visitors watching a group of elephants crossing the road at a very close distance in Udawalawe National Park
(Captured by N. Wijesena in January 2020)

III. Human-elephant conflict (HEC) in Sri Lanka

The current wildlife parks are not enough to provide sufficient habitat for the wild elephant population in the

country and there is a rapid expansion of agriculture into wildlife areas. Elephants enter surrounding agricultural areas seeking food, which trigger the human-elephant conflict (World Bank 2010).

According to a recent study, HEC has caused deaths to 807 people, injuries to 579 people and damages to 10,532 properties during the period of 2010 to 2019 (Prakash et al. 2020). At the same time, 2631 elephants were killed in the conflict during the same period (table 1).

Revenue generated from wildlife tourism does not contribute much to the agricultural communities who suffer from wildlife damage. A survey conducted by World Bank in 2010 among 800 people living around the Yala National Park (the highest visited wildlife park in the country) found out that only 14 of them got direct income from tourism in the park. The survey results also identified the high potential of tourism in compensating for wildlife damage and importance of creating tourism related employment opportunities for local communities who live around the parks as an alternative to agricultural income.

Table 1 HEC caused human and elephant deaths in Sri Lanka in recent years

Year	Number of human deaths	Number of elephant deaths
2010	82	227
2011	60	255
2012	73	250
2013	70	206
2014	67	229
2015	63	205
2016	88	279
2017	87	256
2018	96	319
2019	121	405

(Data source: Prakash et al. 2020)



Photo 3. A banana field damaged by elephants in a village in the northern side of Udawalawe National Park
(Captured by Ranjeewa D. in April 2014)



Photo 4. A rice field damaged by elephants in a village in the northern side of Udawalawe National Park
(Captured by Ranjeewa D. in January 2016)



Photo 5. A property damaged by elephants in a village in the northern side of Udawalawe National park
(Captured by Ranjeewa D. in April 2014)



Photo 6. A warning road sign of elephant crossing in Anuradhapura, Sri Lanka
(Captured by Ranaweelage, E. in Dec 2018)

IV. COVID-19 impact on wildlife tourism and wildlife conservation in Sri Lanka

According to the Sri Lanka Tourism Development Authority (SLTDA), the total number of international tourist arrivals to Sri Lanka from January to September 2020 was 507,311. It is about 63% decline compared to the same period in 2019 (SLTDA Monthly tourist arrivals report September 2020).

A study conducted by World Bank on tourism dependence against tourism resilience in South Asian countries found out that Sri Lanka is the only country in the region that has high tourism dependency on GDP (more than 10%) and low tourism resilience and require more support to recover from the economic impact of COVID-19. Tourism sector accounts for a significant share of employment in Sri Lanka (ILO 2020) and contributes to about 11% of employment in 2019 (World Bank 2020). About 200,000 tourism related jobs are at risk due to COVID-19 impact on the tourism industry (World Bank 2020).

Sri Lanka's main wildlife parks were closed for three months from March to June 2020 as a measure to control the outbreak of COVID-19. The closure of the parks adversely affected the livelihood of volunteer tour guides, safari jeep drivers, accommodation providers and others dependent on the wildlife tourism. For example, over 700 safari jeeps operate in Yala National Park and according to the jeep owners association, the jeep owners are struggling to pay the leasing installments of the jeeps

(Mongabay news site).

Closure of wildlife parks was thought to have positive impact on wildlife that suffered from over crowding and over use of parks by tourists. However, with the increased level of unemployment, absence of visitors and reduced park staff on patrolling as a result of COVID-19, poaching of wildlife has become a serious concern. Even though there are no official statistics on poaching, some news sites reported that over 600 wild animals were killed by poachers daily during the lockdown, and around 40 people have been arrested between April to May 2020, mostly for poaching (Global voices , Outlook India). It was also reported that a 25 years old wildlife ranger attached to the Department of Wildlife Conservation was killed by some poachers at Gal Oya National Park on the 22nd April 2020 (Daily Mirror-Life online, Daily News.lk). There is still no evidence on whether there was a positive impact of controlled human activities (in response to COVID-19) on HEC in the country.

Wildlife parks were reopened in June under strict health guidelines. Visitors' body temperature is checked at the park entrance and visitors' personal contact details are recorded. The number of safari jeeps that can enter a park a day has been limited (table 2). Mobile applications can be used to check park traffic in real time. At the same time, e- ticketing has been introduced to minimize the physical contact and visitors can purchase their entry passes online.

Table 2: Vehicle limitation to major wildlife parks

Park name	No. of vehicles allowed to enter within a day
Yala & Udawalawe National Park	150
Wilpattu National Park	80
Minneriya, Kaudulla, Wasgamuwa National Parks	50

(Source: Department of Wildlife Conservation Sri Lanka)

V. Conclusion

Sri Lanka's wildlife tourism is becoming popular locally and internationally and observing charismatic wildlife species such as Sri Lankan elephant in protected areas has become a major wildlife tourism attraction in the country. However, there have been various detrimental

effects of wildlife tourism on wildlife such as behavioral changes due to tourism induced disturbance and degradation of natural environment particularly due to over visitation and uncontrolled tourism activities. At the same time, human-elephant conflict in wildlife areas is a significant threat to elephant conservation in the country and also to lives and livelihood of rural communities living in wildlife areas. Unfortunately, wildlife tourism's contribution to mitigate the conservation issues such as human-elephant conflict is still inadequate.

Limitation and control of human activities such as restrictions on travelling due to COVID-19 are expected to boost the recovery of natural environment from over use and allow free movement of wildlife without being disturbed by tourist activities. However, unemployment has increased as tourism related jobs have been largely lost in wildlife areas due to COVID-19 and new conservation challenges such as increased poaching of wildlife have occurred in many wildlife parks in the country. This phenomenon is also reported in various other wildlife destinations in the world, particularly in Africa, which indicates the importance of wildlife tourism for wildlife conservation (Newsome 2020).

Sri Lanka has opened its wildlife parks to visitors with several restrictions on usage such as reduced number of vehicles per day and temperature checks before entering the park. There are no cases of animals getting infected with COVID-19 from people in Sri Lanka as yet. However, there have been such cases overseas including several lions and tigers at a zoo in New York.

After COVID-19, people's life style and movements have changed, which clearly impact on tourism. People tend to travel in small groups and would prefer less crowded and less popular places (Chelbi & Said 2020). In this new scenario, it is important for Sri Lanka to re-evaluate and reconsider how wildlife tourism should be managed and operated for the benefit of wildlife conservation and wellbeing of local communities.

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